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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,094	08/26/2003	Lawrence J. Mann	56319US006	2746
32692 7590 08/17/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER				
SALVATORE, LYNDIA				
ART UNIT		PAPER NUMBER		
1771				
MAIL DATE		DELIVERY MODE		
08/17/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/648,094

**Applicant(s)**

MANN ET AL.

**Examiner**

Lynda M. Salvatore

**Art Unit**

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 38-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment and accompanying remarks filed 6/12/07 have been fully considered and entered. Claims 1 and 13 have been amended as requested. Applicant's amendments are not found patently distinguishable over the prior art of record and Applicant's remarks are not found persuasive of patentability for reasons set forth herein below.

***Claim Rejections - 35 USC § 102/103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-6,8-11,13-17 and 19-21 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Windisch et al., US 6,352,567.

Applicant amended claims 1 and 13 to recite the limitation of "wherein there is little or no penetration of the binder below the major surface". Applicant argues that the prior art of Windisch et al., teach away from such a limitation. Specifically, Applicant submits that the disclosure of Windisch et al., teach a binder layer that "at least partially filling spaces between fibers of the non-woven". As such, Applicant asserts that Windisch et al., does not anticipate the claimed invention. This argument is not found persuasive.

With regard to Applicant's newly added limitation of "wherein there is little or no penetration of the binder below the major surface", it is the position of the Examiner that there is not a patently distinct difference between a "little penetration" and "at least partially filling spaces between the fibers of the non-woven". It appears that the instantly claimed binder and the binder of Windisch et al., would at least minimally penetrate the surface of the non-woven. The

Examiner considers the term a “little” relative and non-limiting. Thus a proper comparison between “a little” penetration of the claimed binder and the “at least partially filling” of the Windisch et al., binder is not possible at this time. If the level of penetration is considered a critical feature of the claimed invention then it is suggested that Applicant set forth such definitive limitations.

The patent issued to Windisch et al., teach an abrasive non-woven comprising a lofty non-woven fabric made from natural or synthetic fibers (column 3, 39-column 4, 20). Windisch et al., teach applying a binder comprising abrasive particles to the non-woven (column 6, 59-66 and figure 2). Suitable binder materials include acrylonitrile, butadiene or butadiene styrene and combinations thereof (column 7, 41-57). Suitable abrasive particles include organic based particles such as acrylonitrile-butadiene-styrene block copolymers, polyester or polyurethane (column 10, 50-61). Applicant’s specification discloses these materials a suitable to meet the limitation of rubber.

Windisch et al., does not explicitly teach the Shore A hardness range of the rubber particles as set forth in claims 1,6,11 and 13 however, it is reasonable to expect that the rubber particles taught by Windisch et al., would exhibit claimed hardness properties. Support for said presumption is found in the use of like materials such as rubber particles, which would result in the claimed Shore A hardness. The burden is upon the Applicant to prove otherwise. The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed Shore A hardness would obviously have been present once the Windisch et al., product is provided. *In re Best*, 195 USPQ at 433

Windisch et al., also does not explicitly teach the glass transition range as set forth in claims 1, 8-10,13 and19-22 however, it is reasonable to expect that the binder materials taught by Windisch et al., would exhibit claimed glass transition temperature properties. Support for said presumption is found in the use of like materials such as the claimed styrene-butadiene binder materials, which would provide for the claimed glass transition range. The burden is upon the Applicant to prove otherwise.

In addition, the presently claimed glass transition temperature ranges would obviously have been present once the Windisch et al., product is provided. *In re Best*, 195 USPQ at 433

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 12 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Windisch et al., US 6,352,567 as applied to claims 1 and 13 above.

The rejection of claims 1 and 13 from which claims 12 and 22 depend is maintained as set forth above. Applicant has not provided any new arguments for which to consider.

With regard to the claimed aspect ratio range of 1:1 to about 2:1, Windisch et al., does not teach the claimed aspect ratio. However, it is the position of the Examiner that it would be obvious to it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio as function of desired particle size and shape and to provide the desired frictional and/or abrasive cleaning properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

6. Claims 7 and 18 stand rejected under 35 U.S.C. 103(a) as obvious over Windisch et al., US 6,352,567 as applied to claims 1 and 13 above, and further in view of Hiroyuki, JP 79007996B.

The rejection of claims 1 and 13 from which claims 7 and 18 depend is maintained as set forth above. Applicant has not provided any new arguments for which to consider.

Windisch et al., fail to teach the claimed web density, however, the published Japanese patent abstract discloses a bulky non-woven fabric comprising binder and abrasive particles fixed to the surface. The density of the web is disclosed as ranging from .05-.1 g/cm<sup>3</sup>. Therefore, motivated by the desire to provide a cleaning article with a non-woven substrate layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the bulky non-woven substrate of Windisch et al., with a suitable density as taught by the published Japanese abstract.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 16, 2007  
/Lynda Salvatore/  
Primary Examiner  
Art Unit 1771